

Appendix F
Table 1, Trail Standards Summary

Indicator	Standard A	Standard B	Standard C	Standard D	Standard E	Standard F
Type of Use	All-person access; high-volume foot use (no horses); wheelchair accessible (type f use)	High-volume foot use (no horses; type f use)	High-volume foot use (foot use incidental; type cl use)	Intermediate- to high volume foot and usually horse use (types f/e, all use)	Low- to intermediate-volume foot and usually horse use (types f/e use)	Low-volume foot use (no horses; type f use)
Typical Location and Function	Short paved trail to or around extremely popular features such as lakes; may be interpretive trails	1- or 2-mile trails from heavily visited road corridors to popular scenic areas	Trails from liveries inside or outside park scenic or other resources inside park	Primary backcountry trunk trail (through lower part of main drainage); or trail to primary destination	Secondary backcountry trail (leading to many destination in tributary drainages)	Minor backcountry trails
Treadway Width	6'+	4'+	3'+	1 ½' to 3'	1 ½'+ (variable)	1 ½'+ (variable)
Average Maximum Grade	8 ° maximum, 5 ° sustained	15 °	12 °	12 °	20 °	20 °
Other	Carefully designed and constructed according to standard techniques				Generally a non-constructed trail that evolved informally from use	

Appendix F
Table 2, Trail Standards Details

Standard	General Description	Treadway Surface	Grade/ Erosion Control	Wet Areas	Stream Crossings	Other
A (ACCESSIBLE)	Very high front country standard designed for large numbers of pedestrians, including visitors in wheelchairs	Paved or boardwalk surface, no steps or other barriers to wheelchairs; generally at least 5 feet wide	Generally flat to 5 ° although short segments may be 8 °; no cross-trail drainage structures except broad, gentle dips; margins must be outlined with rock to confine use to treadway	Boardwalks with handrails; bog bridges built with stone	Bridges (minimum 5 feet wide) with handrails	Viewing areas or platforms with handrails for nature observation or interpretation
B (HIGH-STANDARD PEDESTRIAN)	High-standard pedestrian trail designed for minimum maintenance, despite heavy use	Dirt, gravel, or paved surface; a wide (at least 4 feet), relatively smooth surface accommodating two or more people side by side	Constant grades not exceeding 12 °, accomplished with carefully aligned switchbacks and stone retaining walls; stone steps and low stone drainage bars used in preference to wood (log) structures; margins commonly outlined with rock to confine use to treadway	Bog bridges (minimum 4 feet wide) built with stone for permanence	Bridges (minimum 4 feet wide) with hand rails; small streams may be crossed with rock or metal culverts	
C (COMMERCIAL LIVERY)	High-standard trail designed to withstand the impacts of large volumes of commercial horse use	Dirt surface; no slick rock sections; no steps except log checks; dirt on the treadway is typically pulverized and cast aside by hooves, often resulting in a central depression; treadway at least 3 feet wide	Grades not exceeding 12 °; switchbacks and retaining walls used routinely to keep grade at a minimum, avoiding sections running straight up slopes which would gully; numerous heavy-duty log or stone drainage bars and log checks in areas with significant grade	High standard bog-bridges at least 3 feet wide	Heavy-duty bridges (minimum 4 feet wide) with side rails over deep and swift streams; smaller streams may be crossed with single or multiple log footbridges and fords for horses	Tree limbs and brush must be pruned at a height for safe passage of horse and riders

Standard	General Description	Treadway Surface	Grade/ Erosion Control	Wet Areas	Stream Crossings	Other
D (HIGH-STANDARD)	High-standard trail carefully designed and aligned for minimum maintenance; intermediate horse and hiker volumes, requiring construction and clear delineation of the treadway throughout	Dirt surface; fill imported as necessary to establish and maintain an even surface; rough stony sections and slick rock to be removed or modified to safely accommodate horses; treadway 1 ½ to 3 feet wide (depending on terrain and expected use)	Grades generally 12 ° or less; switchbacks and retaining walls used routinely to maintain constant grades; log or stone drainage bars at intervals determined by grade; margins commonly outlined with rock to confine use to treadway	High-standard bog bridges as wide or wider than prevailing treadway width	Heavy-duty bridges (minimum 4 feet wide) with side rails over deep or swift streams; smaller streams may be crossed with single- or multiple-log footbridges and fords for horses	Tree limbs and brush must be pruned at a height and width for safe passage of horse and riders
E (PARTLY-CONSTRUCTED)	Typically a non-constructed trail that has evolved informally through use; may have been partly reconstructed at a higher standard; private horse traffic possible, although difficult in some places	Dirt and rock surface; rough stony sections or slick rock may not be corrected except where necessary to reduce unsure footing for horses; where use has been light, especially in meadows or willow thickets, treadway may be overgrown and indistinct, and cairns and posts may be needed at regular intervals to mark the route; along multiple paths due to wet soils, unwanted paths should be blocked or obliterated and realignment on drier or sloping ground considered; treadway width at least 1 ½ feet, but variable because trail was established by use rather than design	Grades up to 20 °, locally higher; steep sections may be eroded, especially if use has grown beyond the need for a light-duty trail, requiring drainage bars or dips; where trail is along a hillside, with the treadway sloping slightly outward, erosion is probably not a problem and retaining walls not needed; margins typically not lined with rock	Low-standard bog bridges installed only where necessary for safe horse passage and preventing serious damage to boggy soils by horses	Heavy-duty bridges (minimum 4 feet wide) with side rails over deep or swift streams; smaller streams may be crossed with single- or multiple-log footbridges and fords for horses	

Standard	General Description	Treadway Surface	Grade/ Erosion Control	Wet Areas	Stream Crossings	Other
F (NON-CONSTRUCTED NON-CONSTRUCTED)	A non-constructed, foot only trail that has evolved informally through use; unsafe or unsuitable for horses because of very boggy or steep, rocky areas, or for environmental protection; some may not be regarded as part of the official park trail system and may not appear on park maps (examples are paths leading from higher standard trails into cross-country zones, climbers' access trails, and spur trails to most backcountry campsites); constructed structures minimal	Dirt and rock surface; where use has been light, especially in meadows or willow thickets, treadway may be indistinct and cairns may be needed; unwanted multiple paths should be blocked and obliterated, and preferred route clearly marked	Grades up to 20 °; simple waterbars in short, steep, eroded segments should be realigned at a lower grade	Logs rather than bog bridges to keep hikers on route	Single-log bridges where streams are deep or swift, otherwise stepping stones or no structures	In contrast to higher standards, standard F trails may not be cleared of fallen trees, except infrequently when large obstructions are causing multiple paths to formed in easily eroded soils